

[MICROINJECTOR FOR JETTING DROPLETS OF DIFFERENT SIZES]

Abstract of Disclosure

A microinjector uses bubbles as virtual valves to eject droplets of different sizes. The microinjector is in fluid communications with a reservoir and has a substrate, an orifice layer, and a plurality of nozzles. The substrate has a manifold for receiving ink from the reservoir. The orifice layer is positioned on the top of the substrate so that a plurality of chambers are formed between the orifice layer and the top of the substrate. Each of the nozzles has an orifice and at least three bubble generating components. The bubble generating components are selectively driven by a driving circuit so that each nozzle can eject droplets of different sizes.

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